

## **CLAIMS**

24. (Currently Amended) In a computer system having a first set of resources and a second set of resources including an amount of each resource, wherein the amount being specified in terms of units specific to each resource in the set of resources and a resource planner for granting reservations of amounts of currently available resources to activities, a computer implemented method comprising:

submitting by an activity a request for a reservation of the second set of resources in specified amounts to the resource planner;

determining at the resource planner that the request cannot be granted;

returning from the resource planner to the activity a list, the list including an amount of each currently available resource that satisfied the resource reservation request and an amount of each currently available resource that did not satisfy the resource reservation request, the amounts being specified in terms of units specific to each resource in the set of resources;

determining at the activity whether the amounts of each currently available resource satisfy the resource reservation request and will allow the activity to execute predictably;

executing the activity when the resource reservation request is satisfied, otherwise, when the amount of each currently available resource does not satisfy the resource reservation request, reformulating the request for a reservation of the set of resources to new specified requested amounts using the amounts of each currently available resource in the list;

resubmitting the reformulated request to the resource planner;

executing the activity using the new amounts; and

in view of changing resource usage or requirements, renegotiating between the resource planner and the activity to change the resource reservation to reflect the changing resource usage or requirements, wherein the method is implemented with hardware a processor.

25. (Currently Amended) In a computer system having a set of resources including an amount of each resource, wherein the amount being specified in terms of units specific to each resource in the set of resources and a resource planner for granting reservations of amounts of currently available resources to activities, a computer implemented method comprising:

negotiating between the resource planner and activities to reserve shares of the resources with the resource planner on behalf of the activities, wherein the reservation of resources is negotiable;

submitting by an activity a request for a reservation of the set of resources in specified amounts to the resource planner;

determining at the resource planner that the request cannot be granted;

in view of changing resource usage or requirements, renegotiating between the resource planner and the activities to change reservations of resources on behalf of the activities to reflect the changing resource usage or requirements, wherein the renegotiating includes returning from the resource planner to the activity a list, the list including an amount of each currently available resource that satisfied the negotiable

resource reservation request and an amount of each currently available resource that did not satisfy the negotiable resource reservation request, wherein the renegotiating is based on the amount of each currently available resource, the amounts being specified in terms of units specific to each resource in the set of resources[[ ]];

wherein renegotiating further includes determining at the activity whether the amounts of each currently available resource satisfy the resource reservation request and will allow the activity to execute predictably;

executing the activity when the resource reservation request is satisf[[y]]ied, otherwise when the amount of each currently available resource do not satisfy the resource reservation request, reformulating the request for a reservation of the set of resources to a new specif[[y]]ied requested amounts using the amounts of each currently available resource in the list;

resubmitting the reformulated request to the resource planner;

executing the activity using the new amounts, wherein the method is implemented with hardware the computer.

26. (Original) The method of claim 25 wherein the changing resource usage or requirements are the product of a new activity being performed.

27. (Original) The method of claim 25 wherein the changing resource usage or requirements are the product of an activity changing its resource requirements.

28. (Original) The method of claim 25 wherein the changing resource usage or

requirements are the product of an activity no longer being performed.

29. (Original) The method of claim 25 wherein the changing resource usage or requirements are the product of a persistent overload of use of a resource.

30. (Original) The method of claim 25 wherein the changing resource usage requirements are the product of a change in resource allocation policy.

31. (Currently Amended) In a computer system having a first set of resources and a second set of resources including an amount of each resource, wherein the amount being specified in terms of units specific to each resource in the set of resources and a resource planner for granting reservations of amounts of resources to activities, a computer-implemented method comprising:

submitting a request for a reservation for the second set of resources in specified amounts from an activity to the resource planner;

determining at the resource planner that the request cannot be granted;

when the request cannot be granted, returning from the resource planner to the activity a list, the list including an amount of each currently available resource that satisfied the resource reservation request, and an amount of each currently available resource that did not satisfy the resource reservation request, the amount being specified in terms of units specific to each resource in the set of resources;

determining at the activity whether the amounts of each currently available resource satisfy the resource reservation request and will allow the activity to execute predictably;

executing the activity when the resource reservation request is satisfied, otherwise, when the amount of each currently available resource do not satisfy the resource reservation request, reformulating the resource reservation request for a reservation of the set of resources to a new specified requested amounts using the amounts of each currently available resource in the list;

resubmitting the reformulated request to the resource planner;

executing the activity using the new amounts; and

in view of changing resource usage or requirements, renegotiating between the resource planner and the activity to change the resource reservation to reflect the changing resource usage or requirements, wherein the method is implemented with hardware.